

**RF
NEXUS**

Product Datasheet

NEX15-EXT-KB3-003

Key Features

- LoRa
- Sigfox/Z-Wave/ISM
- 433/435 MHz
- Screw Mount
- Usable With/Without Ground Plane
- Water Resistant
- Dimensions
Ø 42 × 94 mm



1- Introduction

The NEX15-EXT-KB3-003 antenna is designed to deliver reliable performance across multiple wireless communication protocols, including LoRa, Sigfox, Z-Wave, and ISM bands, specifically covering the 433/435 MHz frequencies. Its adaptable design makes it perfect for IoT applications that require strong, long-range connectivity in both urban and remote settings.

Featuring a screw-mount system, the NEX15-EXT-KB3-003 allows for easy installation and secure fastening, ensuring stability in a variety of deployment scenarios. It is engineered to function effectively with or without a ground plane, offering flexibility for integration into different systems. Additionally, this antenna is water-resistant, making it ideal for outdoor and harsh environments where durability is key.

With dimensions of $\varnothing 42 \times 94$ mm, the NEX15-EXT-KB3-003 combines top-tier performance with a compact, space-saving design, making it well-suited for industries like smart cities, agriculture, logistics, and other IoT-driven sectors. Its robust construction and wide frequency support ensure reliable communication, even in demanding conditions.

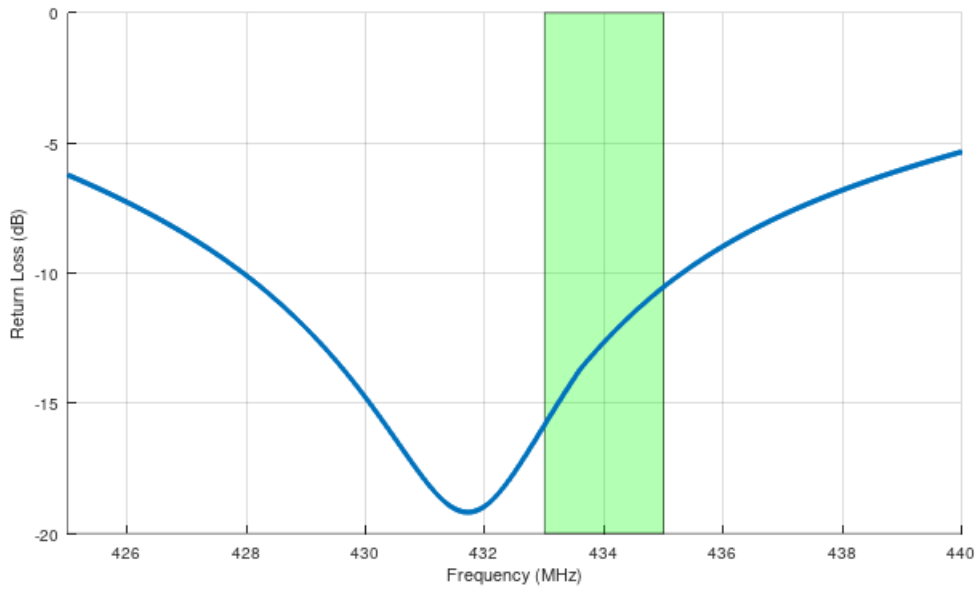
2- Specifications

Mechanical	
Size	94mm
Diameter	42 mm
Connector	SMA(M)
Screw	M12 (1.75)
Casing	ABS(UV)
Weight	36g
Temperature Range	-40°C to 85°C
Electrical	
Frequency (MHz)	433/435
Return Loss (dB)	-13
VSWR (dB)	2.1:1
Efficiency	73%
Peak Gain (dB)	2.8
Impedance	50Ω
Polarization	Linear
Pattern	Omnidirectional

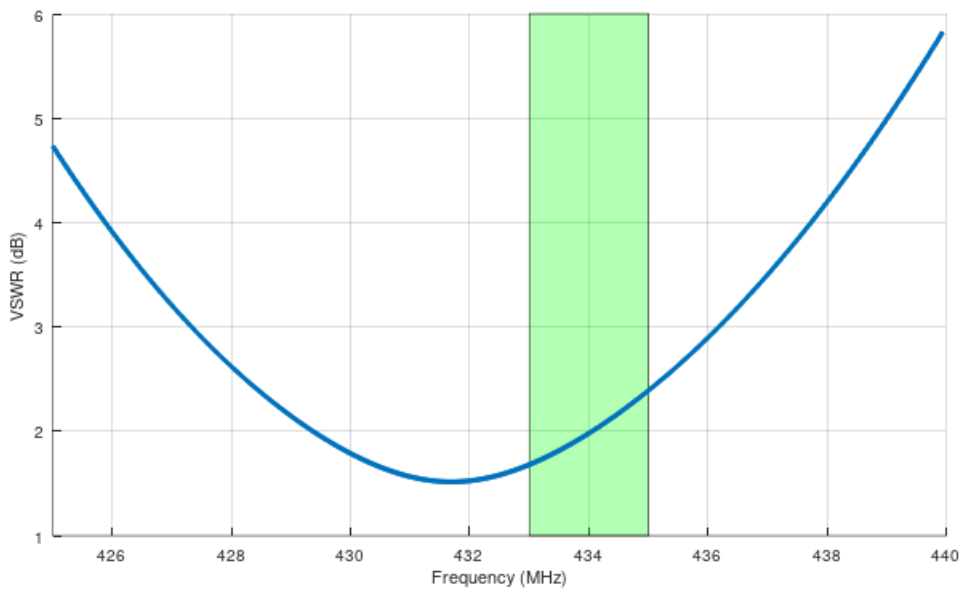
*Data are given for antenna in free space with 3m LMR195 cable .

3- Antenna Parameters

3.1- Return Loss

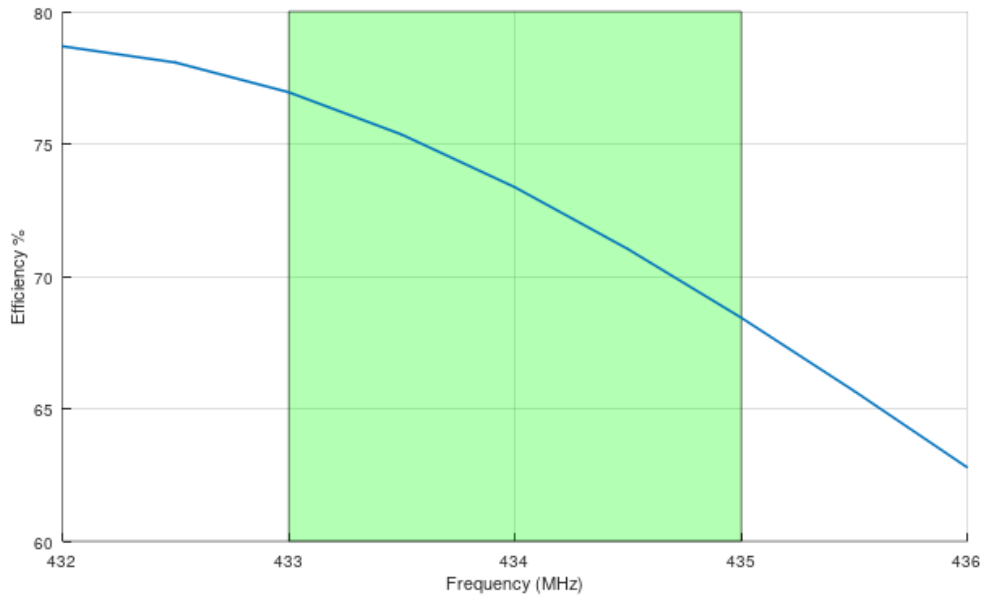


3.2- VSWR



*Data are given for antenna in free space with 3m LMR195 cable .

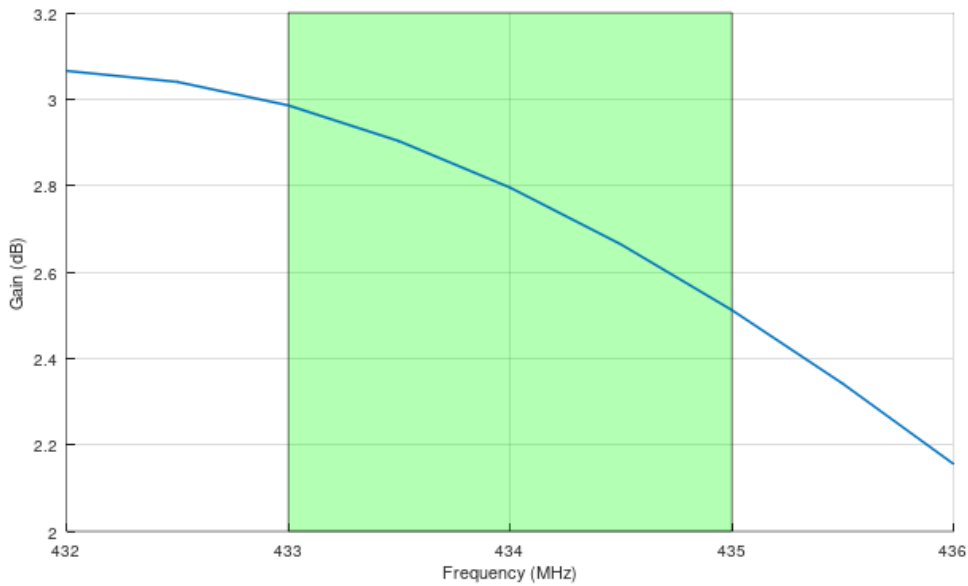
3.3- Efficiency



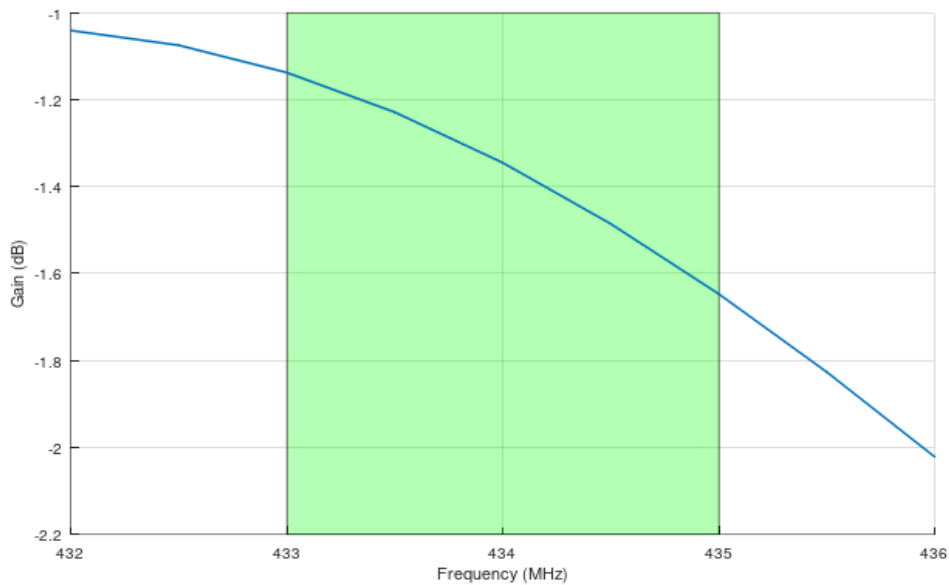
*Data are given for antenna in free space with 3m LMR195 cable .

4- Radiator Patterns

4.1- Peak Gain

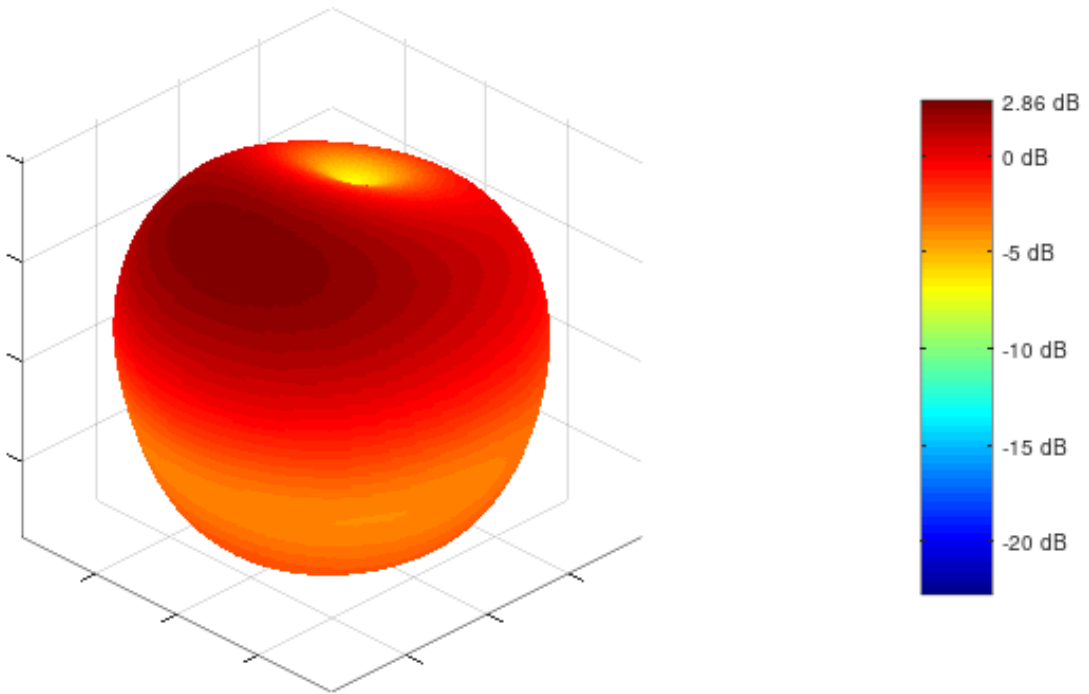


4.2- Average Gain



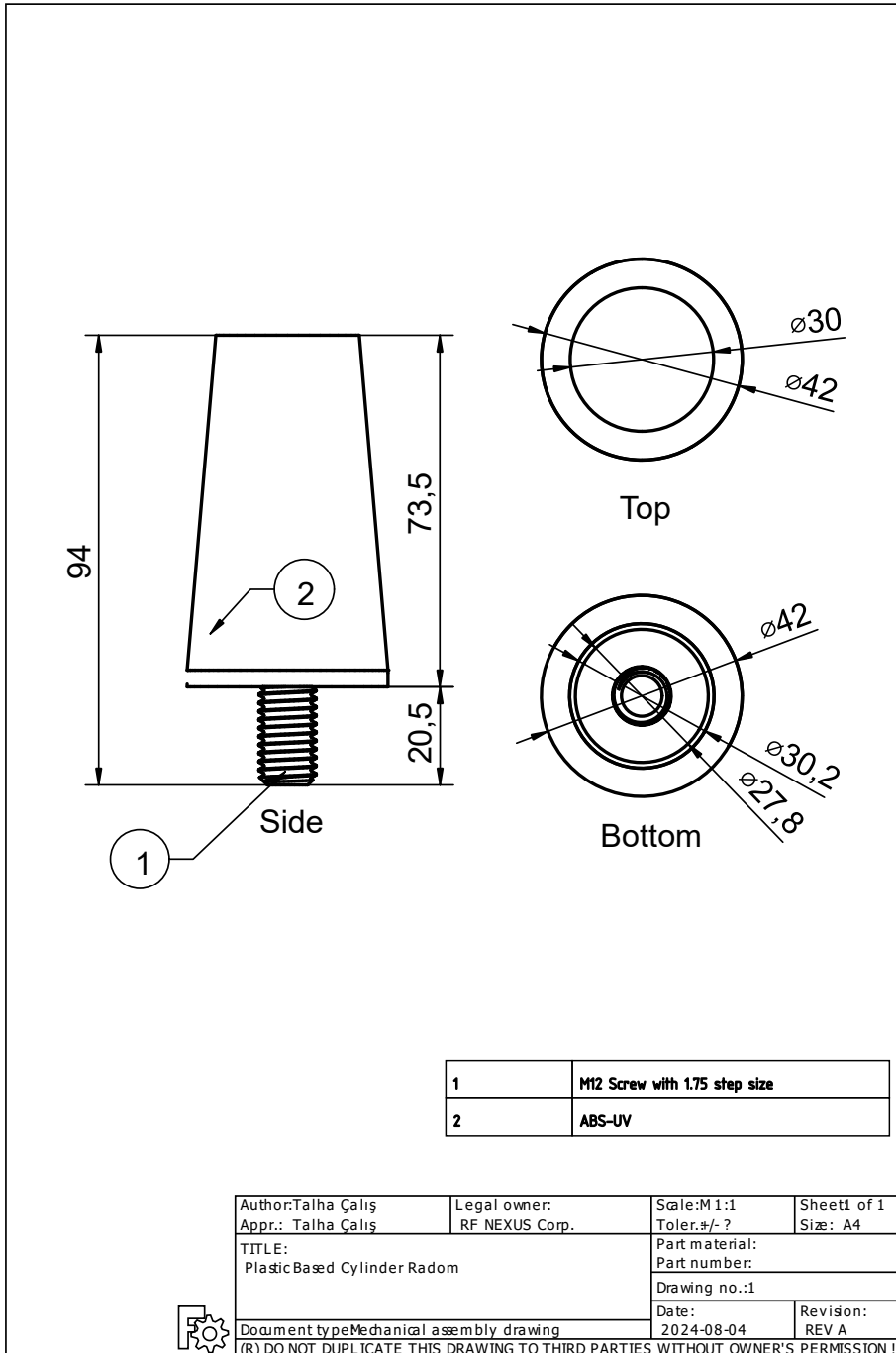
*Data are given for antenna in free space with 3m LMR195 cable .

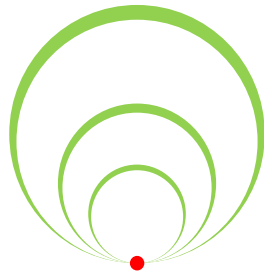
4.3- 433 MHz Pattern



*Data are given for antenna in free space with 3m LMR195 cable .

5- Technical Drawing





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